Sampling procedure: Identification photo & Tagged specimens

IOTC ROS SFO TR11.6-7

Category: Sampling procedures

[IOTC ROS SFO TR11]

Observers need to know how to take photographs that can be used to identify any fish or shark, or other organism that they are not able to positively identify at the time

as seen in the guide is a step-by-step approach and taking pictures to identify a fish or shark should follow the same process.

Guide to taking pictures for identification

How to photograph a specimen

Identifying any fish or shark, in an ID guide is a step by step approach looking at diagnostic feature that will lead to a positive identification

Taking pictures to identify a fish or shark follows the same process Look at

- external anatomy (morphometric) characteristics
- anatomical features and any specific "diagnostic features" *(a feature that is specific to a single species or group of species*
- markings, patterns, and colour

Identifying any fish or shark, in an ID guide is a step by step approach looking at diagnostic feature that will lead to a positive identification. Essentially taking photographs to Identifying any unknown fish or shark, should follow the same procedure by focusing on and taking clear pictures of features that may assist in the identification process.

The process to identify a fish or shark in its whole or processed state would be to look at:

1. external anatomy (morphometric) characteristics;

    a. body shapes;

    b. body sizes;

    c. teeth shapes;

    d. snout shapes;

    e. mouth positions;

2. anatomical features and any specific "diagnostic features" *(a feature that is specific to a single species or group of species);*

    a. fins, shape, and length;

    b. relative position to each other dorsally and ventrally;

    c. caudal keels, present or not;

3. markings, patterns, and colour;

    a. distinctive stripes or spots;

    b. dorsal and ventral colour; and

    c. fin colours.

Guide to taking pictures for identification

Protocol for photographing a specimen

- take pictures of the left side
- head facing to left
- dorsal side at top of picture
- place fish on a uniform background

Take several pictures of the same fish or shark,
CHECK that the picture clearly captures all features

The general protocol for photographing fish or sharks is to take pictures of the left side with head facing to left and dorsal side at top of picture.

Try to place the fish on a uniform coloured background in contrast to the fish colours

Take several pictures of the same fish or shark, and **it is very important** to see that the picture clearly captures all features. Check the quality of the picture before saving it.
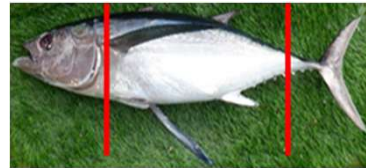
Guide to taking pictures for identification

Protocol for photographing a specimen

Mentally divide the fish or shark into 3 sections Head, Body, and Tail
Take close up pictures of each section

Head includes,
- mouth,
- teeth,
- eye,
- operculum
- gill slits

Mentally divide the fish or shark into 3 sections

- head;

- body; and

- tail.

Head section must include:

- mouth features and teeth where possible

- the relative position and size of the eye to the whole head must be visible

- note shape of operculum and any features

- for sharks the full number of gill slits should be visible

Guide to taking pictures for identification

Protocol for photographing a specimen

Trunk/or body includes all fins excluding caudal fin

Tail section includes finlets, caudal peduncle and keels (if present) caudal shape and colour.

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Trunk/or body section should show all fins. It may be necessary to take several pictures to show these and their relative positions and relative lengths to each other

Tail section should show finlets if present and shape of the caudal peduncle and keels (if present).

The full shape of the caudal fin (tail) must be shown for both fish and sharks. Take close up pictures of any significant features such as ridges on indentations on the trailing end of the caudal fin.

Guide to taking pictures for identification

Hints to taking good pictures

- Take picture in clear light without contrasting shadows
- Use a uniform coloured background
- Cut out objects or people keeping a clear space around object
- Take pictures from different angles
- Focus on noticeable or diagnostic features
- Use reference to gauge length
- Add label recording date and time, vessel
- Avoid wet deck or reflective background
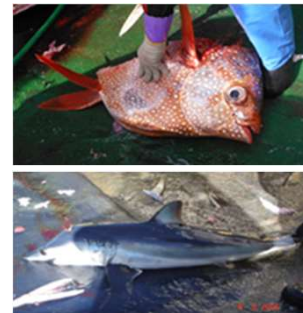
Hints to taking good pictures for identification

When setting up to take pictures there are several aspects that need to be kept in mind

- try to take picture in a clear light without contrasting shadows;

- attempt to have any other objects or people out of the picture so there is a clear uniform space around the object;

- take pictures from different angles to show relative fin positions;

- when taking pictures of products focus on areas where fin are cut off and their relative positions internal anatomy;

- focus on any noticeable or diagnostic features;

- use a reference to gauge length, measuring tape or objects recognised with a fixed length;

  - measuring tape;

  - knife, or

  - Pencil;

- if possible use a dedicated label that records date and time and any other information to support the picture; and

- try to take pictures on a non-reflective background and avoid shadows or reflection that can distort colour and outline.

How to photograph sea turtles

Take a photo of the whole animal (with fishing gear if present)

Zoom in

- The carapace and breastplate
- Any new wound or healed wounds
- Photograph the shape of the head (top view)
- Take pictures of the left and right profiles of the head

Turtles are species of special interest and vulnerable to a range of fishing gears. When a turtle is caught it is important to take as many photos as possible to allow analysis of how it was caught and any injuries or impact the fishing gear had on it

Take a photo of the whole animal (with fishing gear if present). Zoom in on the carapace and breastplate to facilitate identification of the animal. Photograph the shape of the head (top view), and take pictures of the left and right and the profiles of the head.
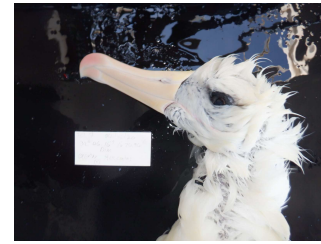
If the animal shows any signs of new or old injuries take pictures of any new wound or healed wounds

How to photograph seabirds

Take a photo of the whole animal (with fishing gear if present)

Zoom in on

- Plumage coloration on both sides
- Beak
- The claws

Birds are vulnerable and protected and fall under the category of PET species (Protected, Endangered & Threatened)

Take a photo of the whole animal (with fishing gear if present)

Zoom in on

- Plumage coloration on both sides (dorsal and ventral)

- Beak

- The claws

Place a label to record date and time and vessel name and position if possible.

How to photograph Tag returns

Tag photos is to verify tag number
- Take a photo of the whole fish or turtle with the tag in place
- If possible take the picture so the tag in situ that tag number can be read
- Take clear pictures of the tag so the numbers are readable

The main object of taking tag photographs is to verify tag number in the event there is an error on transcription when capturing data. Important to take more than one and clear photographs.

- Take a photo of the whole fish or turtle with the tag in place

- If possible take the picture so the tag in situ and that number can be read

- Take clear pictures of the tag so the numbers can be clearly seen

- Be sure to name the pictures correctly so that tag picture relate to the animal tagged.

How to photograph Tag returns

Tag photos is to verify tag number

- If possible place tag on a colour coded template for tagging the picture
- Additional information on a label is also valuable
    - Date & time & position
    - Vessel name
    - Species
    - Biometrics
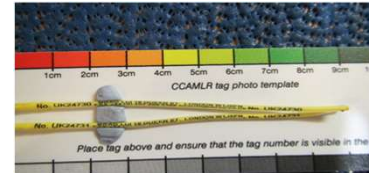
Where possible use a colour coded template on which to photograph the tag. This allows to verify the tag colour.

It is also valuable to add is a label that provides additional information such as:

- date and time recovered

- vessel name

- position

- biometrics of the tagged animal

- observers name

Tag recoveries

Accurate recording detail of tag recoveries HIGH PRIORITY

For each tags information to be collected must include

- Tag numbers (some fish and turtles may have two tags)
- Tag colour
- Species name
- Measurements
- Fork length for tuna
- Length to the first dorsal for billfish
- Carapace curve length for turtles
- Total length for sharks

- Date of recovery
- Fishing vessel details
- Storage of animal (if appliable)
- Details of the recoverer
- Any other relevant information
- Photo to verify number
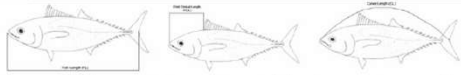
Accurate recording of all the detail of tag recoveries is a HIGH PRIORITY

For all the tags the main information to be collected includes:

1. Tag number and colour (tag numbers if turtle as two flippers tagged)

2. Species name

3. Measurements

    a)   Fork length for tuna

    b)   Length to the first dorsal for billfish

    c)   Carapace curve length for turtles

    d)   Total length for sharks

4. Date of recovery

5. Fishing vessel / reefer

6. Storage location if the whole specimen is retained (Well number / hatch (if any)

7. Name and contact of the recoverer

8. All other information requested on the recovered tag

9. Photo for confirmation on identification

TAG RECOVERY FORM

| TAG NUMBER | | Fish Length | | Measurment reliability | Good | | Bad | |

SPECIES	Yellowfin	
	Bigeye	
	Skipjack	
Other		

| Fork Length | | First dorsal Length | | Curve Length | |
| | | | | Length along the body curve | |

Weight		kg
Reliability	Weighted	
	Estimated	

Measuring tool	Measuring board		String	
	Caliper		By eye	
	Other		Tape	

Fish state	Fresh	
	Frozen	
	Cooked	

| Fishing Vessel | | Well | | / | Reefer | | Hatch | |

Date Found				Where found				Process when found	Fishing		Sorting	
Date Returned				Fishing boat		Fish market			Transfer		Ranking	
Date Unloaded				Reefer		Cold store			Unload		Butcher	
Date Caught				Cannery		Other			Other			

Position of catch		Accuracy		Or describe fishing area		School type	Free school		Log	
Latitude		GPS					Other		FAD	
Longitude		Estimated								

| Fishing method | Purse seine | | Gill net | | Pole n Line | | Other | | |
| | Longline | | Hand line | | Troll line | | | | |

| Country of recovery | | Reward | Not given | | Given | | |

| Finder Name | | Signature | |
| Address | | | |

| Comments | | Form filled by | |

ANY QUESTIONS?

send us a message via Talents LMS